UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,890	10/01/2003	Michael R. Longe	TEGI0013	5341

22862 7590 04/28/2006

GLENN PATENT GROUP
3475 EDISON WAY, SUITE L
MENLO PARK, CA 94025

EXAMINER	
SHAPIRO, LEONID	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/677,890	LONGE ET AL.	
	Examiner	Art Unit	
	Leonid Shapiro	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37,40,41,43-64 and 66-76* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37,40-41,43-64,66-76* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 October 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the newly introduced limitation of independent claims 1, 32, 63: "**difference** calculation module ... including at least an **angular difference** between an actual direction of pointing and **pre-assigned directions of letters**", limitation of claim 70: "providing a weighting value for each linguistic object subcomponent according to angular proximity between the subcomponent's corresponding actual user-submitted directional' input and the directional input exactly mapped to the subcomponent" and limitation of claims 72-73: "narrowing or occupy greater displayed pie wedge and corresponding range in proportion to magnitude of the directional input or frequency of general usage" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The newly introduced limitation of independent claims 1, 32, 63: "**difference** calculation module ... including at least an **angular difference** between an actual direction of pointing and **pre-assigned directions of letters**", limitation of claim 70: "providing a weighting value for each linguistic object subcomponent according to angular proximity between the subcomponent's corresponding actual user-submitted directional input and the directional input exactly mapped to the subcomponent" and limitation of claims 72-73: "narrowing or occupy greater displayed pie wedge and corresponding range in proportion to magnitude of the directional input or frequency of general usage" are not disclosed in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-37, 40-41, 43-63, 70, 72-73, 76 are rejected under 35 U.S.C. 112, first paragraph, as new matter situation. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly introduced limitation of independent claims 1, 63: "**difference** calculation module ... including at least an **angular difference** between an actual direction of pointing and **pre-assigned directions of letters**", the newly introduced limitation of independent claim 32: "...an **angular difference** between an actual direction of pointing and **pre-assigned directions of letters**", the newly introduced limitation of claim 70: "providing a weighting value for each linguistic object subcomponent according to angular proximity between the subcomponent's corresponding actual user-submitted directional input and the directional input exactly mapped to the subcomponent" and the newly introduced limitation of claims 72-73: "narrowing or occupy greater displayed pie wedge and corresponding range in proportion to magnitude of the directional input or frequency of general usage" are new matters, not disclosed in the specification or Figures.

As to claim 76, the newly introduced limitation of independent claim 76: "**determined angular similarity**" is not disclosed in the specification or Figures.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-37, 40-41, 43-63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear how to introduce pre-assigned directions of letters without disclosing where is the starting direction in the newly introduced limitation of independent claims 1, 63: "**difference** calculation module ... including at least an **angular difference** between an actual direction of pointing and **pre-assigned directions of letters**" and the newly introduced limitation of independent claim 32: "...an **angular difference** between an actual direction of pointing and **pre-assigned directions of letters**" ?

Since newly introduced limitation was not disclosed and not clear, there will be no rejection of claims 1-63, 76 on prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe, USPN 6,567,072 in view of Goodman et al., USPN 6,654,733 B1 and Masui, USPN 6,002,390.

Watanabe describes a text entry input module for use with user interface components [character input device 1] including a directional indicator [direction indicating device 2] plus one or more buttons or equivalent user input means [keys 4 – 7] and an output device [display device 9] with a text display area [function display unit 10]. Watanabe, col. 7, lines 20 – 44; and figure 1. Watanabe teaches a vocabulary database of linguistic objects; a mapping between angular directions of the direction indicator and linguistic object subcomponents [character sets 11 – 17 etc.]. Watanabe, col. 8, lines 5 – 24; and figures 3 & 4. Note that the specification teaches that "The linguistic objects... include but are not limit to: words, phrases, abbreviations, chat slang, emoticons, user IDs, URLs, non-English (such as Chinese or Japanese) characters." Specification, page. 8. Watanabe teaches a processor [CPU 18]. Watanabe, col. 11, lines 25 – 36; and figure 11. Watanabe teaches that the processor comprises an object search engine configured to utilize the output to retrieve from the dictionary a list of predicted linguistic objects potentially representative of the user-submitted directions. Watanabe, col. 9, lines 1 – 17. The processor calculates a distance to find letters in the pointing direction with the distance calculation module. Watanabe, col. 8, lines 24 – 35; and figures 5A – 5C.

Watanabe does not disclose a calculation module to apply mapping to each user-submitted direction entered via the direction indicator to provide an output, said output including: multiple predicted linguistic object subcomponents and, for each predicted linguistic object subcomponent, an associated proximity weighting; a linguistic object module

programmed to utilize at least one predetermined linguistic model to order said list of potential linguistic objects according to likelihood of intended selection by the user; a selection component to facilitate user selection of a desired linguistic object from said ordered list of predicted linguistic objects.

Goodman et al. teaches a calculation module (See Fig. 1, item 21) to apply mapping to each user-submitted direction entered via the direction indicator to provide an output, said output including: multiple predicted linguistic object subcomponents and, for each predicted linguistic object subcomponent, an associated proximity weighting; a linguistic object module programmed to utilize at least one predetermined linguistic model to order said list of potential linguistic objects according to likelihood of intended selection by the user (See Fig. 3, item 204, Col. 9, Lines 21-62)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Goodman et al. into Watanabe system in order to determine a most likely intended-to-be-typed keystrokes (See Col. 1, Line 60-61 in the Goodman et al. reference).

Watanabe and Goodman et al. do not disclose a selection component to facilitate user selection of a desired linguistic object from said ordered list of predicted linguistic objects.

Masui teaches a selection component to facilitate user selection of a desired linguistic object from said ordered list of predicted linguistic objects (See Fig. 7, items PDMj, A, Col. 8, Lines 31-37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Masui into Goodman et al. and Watanabe system in order to select candidate words (See Col. 1, Line 55-57 in the Masui reference).

6. Claims 66-69,71,74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Millington, USPN 6,765,554 in view of Goodman et al., USPN 6,654,733.

As to claim 66, Millington teaches a computer readable storage medium tangibly embodying a program of instructions executable by a digital data processing machine to perform text input operations (See Fig. 5, item CPU22, Col. 4, Lines 6-10 and Col. 2, Lines 3-46) comprising:

receiving machine-readable signals representing a series of user submitted directional inputs entered via a directional input tool (See Fig. 6, items 118,120, 126, Col. 4, Lines 56-59), the series having an order;

where directional inputs of the directional input tool correspond to different linguistic object subcomponents according to predetermined mapping (See Fig. 6, items 118,120, 126, Col. 4, Lines 56-59);

for each user-submitted directional input, based upon that directional input alone, estimating multiple corresponding subcomponents that the user might have intended by such directional input, and providing a weighting value that the user intended each such subcomponent (See Figs. 5-6, items 52,66,100, Col. 5, Lines 10-27);

assembling the different ones of me estimated subcomponents to construct multiple different proposed linquistic objects that the user might have intended by the series of directional inputs, where each proposed object includes one estimated subcomponent for each user-submitted directional input, the subcomponents occurring in me proposed object in the same order as the series of user-submitted directional inputs (See Figs. 5-6, items 28, 104, 128, from Col. 6, Line 40 to Col. 7, Line 10);

facilitating selection of a desired one of proposed objects (See Fig. 2, items 26,52,66, Col. 5, Lines 29-37).

Millington does not disclose providing a weighting value that user intended each such subcomponent.

Goodman et al. teaches processor (See Fig. 1, item 21) to weight values for the letters (See Fig. 3, item 204, Lines 21-62).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teaching of Goodman et al. into Millington system in order to determine a most likely intended-to-be-typed keystrokes (See Col. 1, Lines 60-61 in the Goodman reference).

As to claim 67, Millington teaches each linguistic object subcomponent comprises an alphabetic letter (See Fig. 6, items A, B, C, D...).

As to claim 68, Millington teaches ordering proposed linguistic objects according presence in user-defined list (alphabetized list) (See Col. 5, Lines 24-28).

As to claim 69, Millington teaches for each user-submitted directional input identifying linguistic object subcomponents within a predetermined angular range thereof according to the predetermined mapping (See Fig. 6, items 118,120,122);

limiting the estimated subcomponents to those identified (See Fig. 2, item 52, Col. 3, Lines 32-51).

As to claim 71, Millington teaches user-submitted directional input, displaying a pie wedge indicating a current direction of the directional input tool and a range of linguistic object subcomponents within that range (See Fig. 2, Col. 3, Lines 32-51).

As to claim 74, Millington teaches identifying supplemental linguistic objects that contain the proposed linguistic objects and include further subcomponents, and including the supplemental linguistic objects in the proposed linguistic objects (See Fig. 2, items 24,52, Col. 5, Lines 20-37).

As to claim 75, Millington teaches the assembling operation further comprises ordering the proposed linguistic objects according to the alphabetized list of city names (See Col. 5, Lines 20-37).

Response to Arguments

7. Applicant's arguments with respect to claims 1-37,40-41,43-63,66-76 have been considered but are moot in view of the new ground(s) of rejection.

8. In remarks Applicant's mentioned claim 64 only in the Headers, but not in the Arguments. Since Applicant's didn't argue rejection of claim 64, previous rejection of claim 64 is maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LS
04.11.06

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600